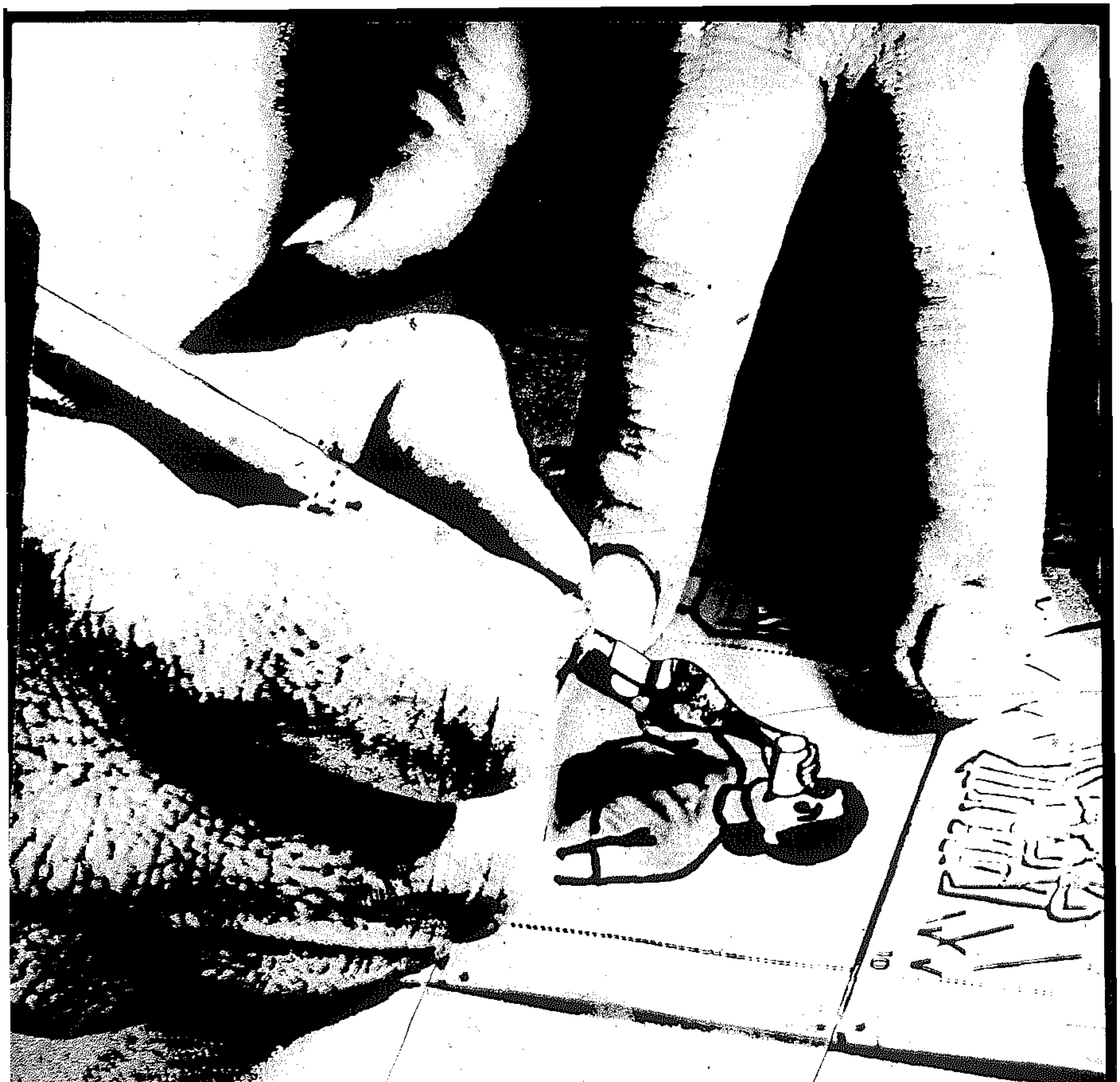
Visual Aids Tracing Manual

by: World Neighbors

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WORLD NEIGHBORS

VISUAL AIDS TRACING MANUAL

Ideas and step-by-step instructions for the making of hand-drawn filmstrips, posters, and flipcharts from inexpensive materials

YOU DON'T HAVE TO BE AN ARTIST

—to make your own filmstrips

You may have heard other people say, or said yourself, "Visual aids are fine for people who can draw or who have an artist to draw for them, but I can't draw and I don't know an artist who can draw for me."

Another comment you might have heard is, "Visual aids really add a lot of interest to a program, but I can't seem to find ones that are particularly relevant to my area's problems. None seem to show exactly what I need to show."

Good Visual Aids Are Needed

These are both valid comments. Although filmstrips, flipcharts, posters, movies, booklets and pamphlets containing good information may be available, it is a problem to find visual aids which suit your program exactly. You may not be able to get them where you live or you may not even know where to look.

You may be waiting for some outside source to supply the visual aids which you need to make your work more effective. Many agencies are working to produce visual aids. But there are many time-consuming steps involved in making materials.

When you finally receive them, how can you be sure that they will be compatible with your work? Will visual aids made by an outside agency consider the customs and habits of your area or the problems you think are the most important? Will they suggest solutions which are practical for your neighbors?

No one knows the customs, habits, beliefs and problems of the people you are working with better than you. In order to have filmstrips, flipcharts, posters and pamphlets which deal with the problems which are pressing in your area—and to have them when you need them—you must make them. You don't have to be artistic. You don't need an artist to draw your materials and put them together for you. You can make them by simply tracing the pictures for the visual part of your program.

These filmstrips can be made using inexpensive materials available in any local market. You can easily make this type of filmstrip for your educational programs.





Filmstrips enable you, as a field worker, to personalize the material you present and to be more effective. A Crusader projector is being used for this filmstrip presentation to cooperative leaders in Bolivia, South America.

Materials Are Available Locally

Only a few materials are needed to make your own filmstrips, flipcharts, flashcards, posters and pamphlets. These visual aids can be made using materials which are locally available and not expensive. This manual discusses several of these materials and ways of using them. You may also want to try other drawing materials which are not mentioned.

The drawings in this manual are only a beginning for tracing your own filmstrips. You can find many other sources for pictures. School books, newspapers, magazines and small pamphlets are all good sources for pictures you can trace. Since tracing gives you practice in drawing, after you have traced several pictures you may want to draw a few of your own.

Read carefully the instructions which follow and you too can produce visual aids that will help increase the effectiveness of your programs.

TABLE OF CONTENTS

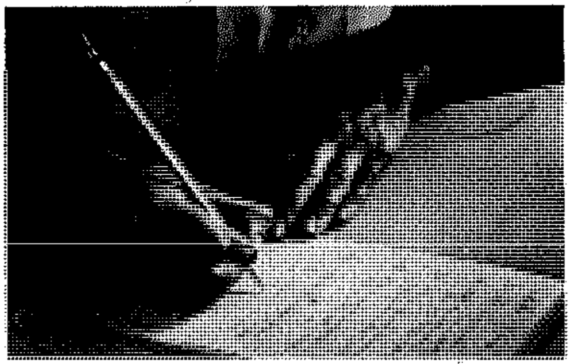
FOR ADDITIONAL COPIES OF MANUAL WRITE:
WORLD NEIGHBORS
5116 N. Portland Avenue
Oklahoma City, Oklahoma
73112 U.S.A.

FOR INFORMATION ON CRUSADER PROJECTORS:

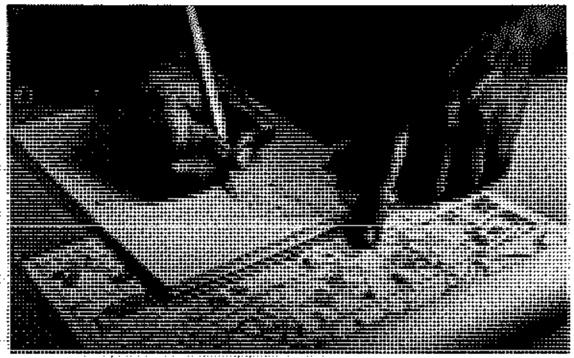
ESB Incorporated
P.O. Box 8109
Philadelphia
Pennsylvania, 19101
U.S.A.

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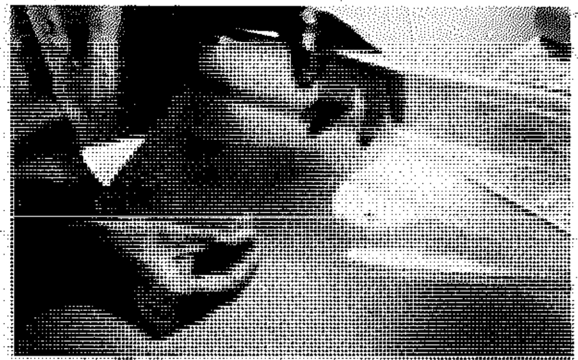
Mr. R. A. dos Remedios
Export Manager
Ray-O-Vac International Corp.
604 Chartered Bank Building
Hong Kong, B.C.C.



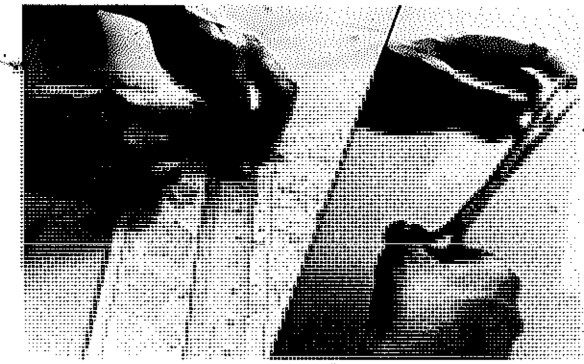
1. One main step comes before the tracing of a polyvinyl filmstrip. Select or write a simple but interesting story to use for a script. Divide this story into sections, numbering each section. Each section should describe an action which can be easily illustrated by one picture. This will be the script for the filmstrip. It can be read during the program.



2. Search through the tracing book and select pictures which best illustrate your script. The number in the corner of the picture should be listed next to each section of the script. This listing will make the drawings easier to locate when they are to be traced. You may want to add some of your own drawings to make the strip more personal.



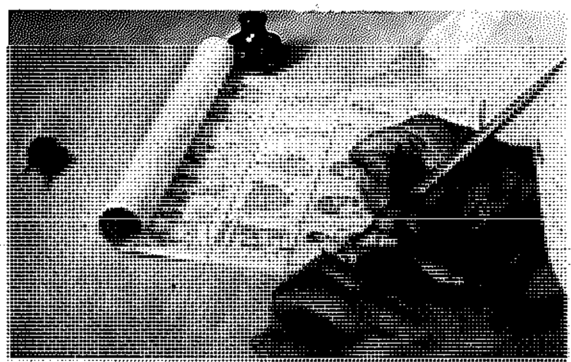
3. Polyvinyl plastic is usually in rolls, although it may sometimes be found in pre-cut sheets which are about one meter square. This plastic is sold in hardware, paint or general stores and is not expensive. A one meter square is enough plastic to make about 20 filmstrips. Acetate is sold in stores where drafting or art materials are available.



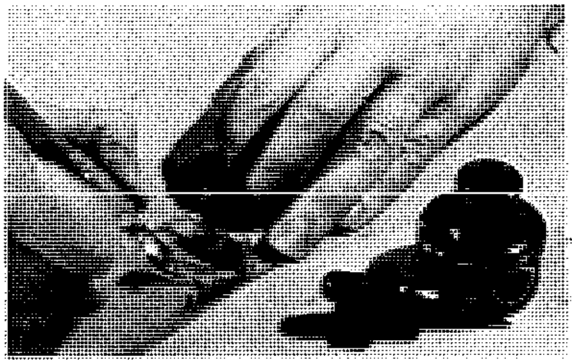
4. The polyvinyl plastic or acetate should be cut into 5 cm. (1-15/16 in") wide strips. This is easily done by marking the material with a pen and straight-edge and cutting with scissors or a sharp knife. If a ruler is not available, the horizontal lines which separate the drawings in this manual may be used to measure the proper width of the strip.



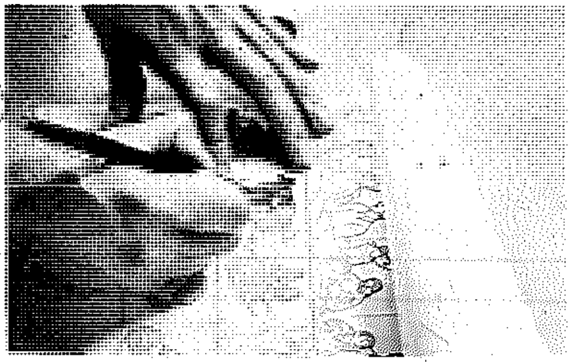
5. Prepare the surface of the strip by rubbing it vigorously with a cloth moistened with gasoline. This procedure assures that ink and other liquids will adhere. To avoid accidents, keep the gasoline out of the reach of children and away from fires. Strips may be cleaned enough to work with some inks by rubbing with a cloth and avoiding contact with the fingers.



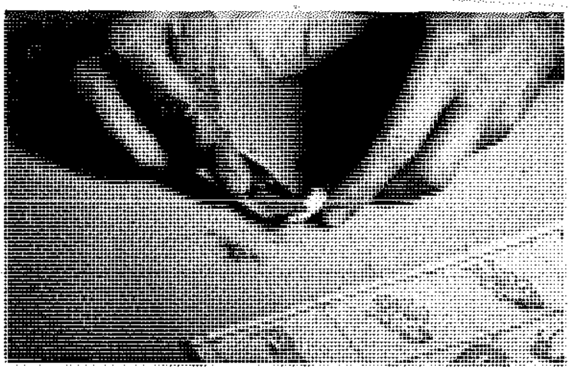
6. Tracing can be done with a pen point dipped in India ink. Several types of permanent ink will give good results, but washable inks are usually unsuccessful. A B-6 size lettering point is recommended, however, any pen point will work, including a fountain pen. The pen point must be pressed very lightly on the surface, or the ink will not adhere.



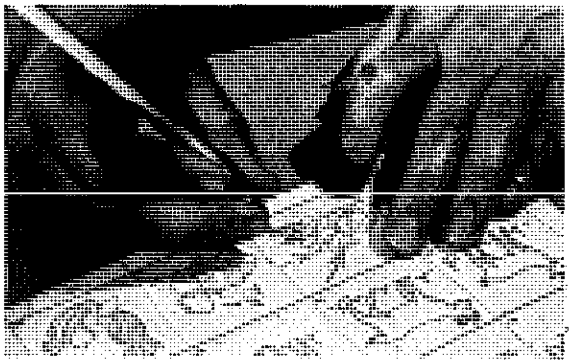
7. If the ink is put on too thick it will crack after the filmstrip has been used a few times. Because of this, many people use a finer line while they are learning to trace or when they want more detail in a picture. To draw a finer line use the B-6 lettering pen point upside down, or use a fine pointed Crow Quill pen. Fine and thick lines may be mixed.



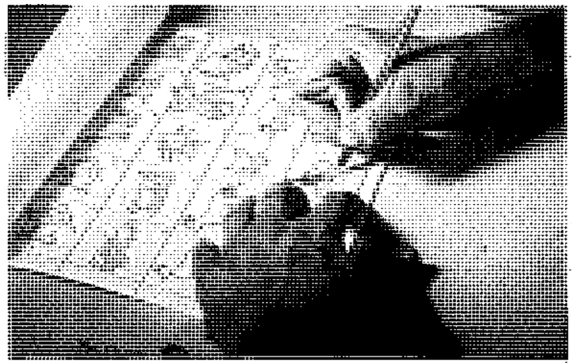
8. Fine pointed colored marking pens are also good for tracing on polyvinyl or acetate. Some brands are better for marking on this slick material than others—usually those that have an alcohol smell to the tip are the best. Before large quantities are purchased, experiments should be made with any marking pens that are available to be sure they will write on plastic.



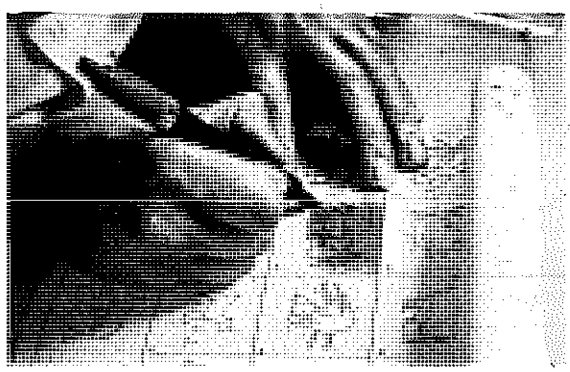
9. China Markers write on polyvinyl plastic or acetate very well. Colored China Markers are available, but all colors usually project as black or a very dull color. It is important to keep the point of the marker sharp, so that the traced picture will be neat. A dull point will not only make the image rough, but also causes smears on the drawing.



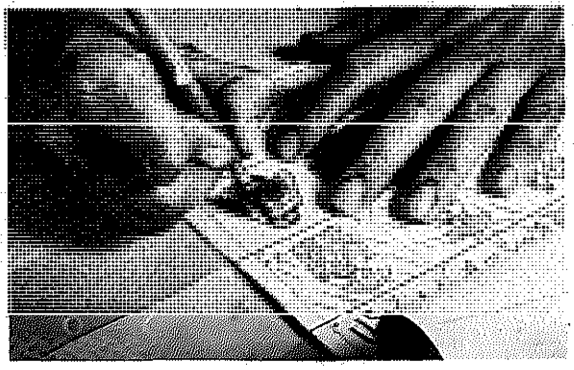
10. A sharp point of any sort may be used to trace on the plastic or acetate. The scratches are not easily seen while the tracing is being done, but show well when the filmstrip is projected. This type of drawing is good if very detailed, small drawings are desired. Press lightly when using acetate, or the material will be cut all the way through.



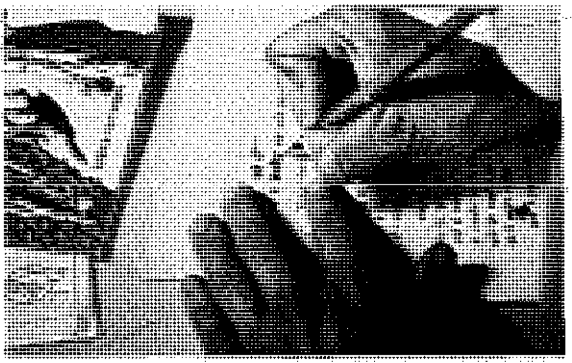
11. Ball point pens may also be used to trace. However, it may be necessary to go over each line more than once. Each stroke will add a small amount of ink. Solid areas are best achieved using a ball point pen if hatch marks are made. These should overlap at varying angles. A ball point pen is more successful on polyvinyl plastic than acetate.



12. Filmstrips may be as colorful as you desire. Solid background colors are applied by using large magic markers in broad sweeping strokes. Coloring with magic markers should be done before the drawing is traced, or on the back of a traced drawing. If you attempt to color on top of an ink tracing, the marker may rub off the ink or smear it.



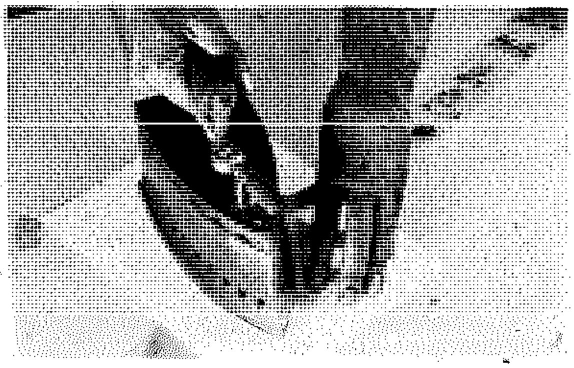
13. Faces, clothing, plants, animals, ground and sky may be colored with marking pens while the strip is over a tracing book illustration. This type of coloring can be done before the actual tracing begins or on the back of a traced picture. Since colored markers react differently with acetate and polyvinyl, experiment before buying a large quantity of markers.



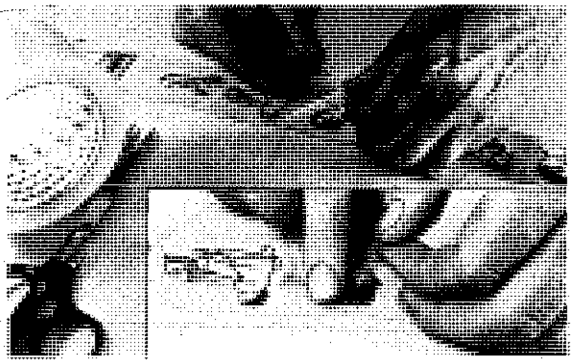
14. Titles may be traced to head a filmstrip. Magazines, newspapers and books are good sources for lettering styles in any language. When a style is selected, letters for the title are traced just as the tracing book illustrations were traced. Be sure to keep titles small enough to fit into a projected format. Solid color backgrounds are good for titles.



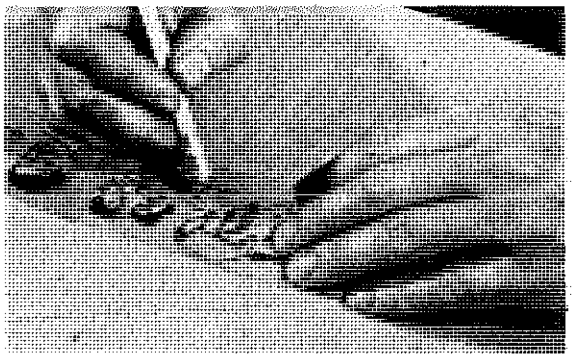
15. When a polyvinyl or acetate filmstrip is completely traced, it must be sealed to be sure that the traced image will not get rubbed off accidentally. Several methods of sealing work well, but only one is needed. Use the method which is easiest and most convenient for you. Make sure the tracings are very dry, before any method of sealing is used.



16. Tracings may be sealed by ironing a blank strip of thin polyvinyl plastic over them. This method does not work for acetate. After being heated by the iron, the strip must be allowed to cool lying flat, otherwise it may stretch or become distorted. Be sure to put a paper between the iron and the plastic, or they will stick together.



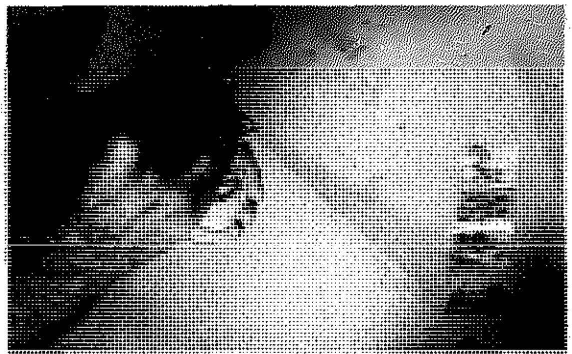
17. Transparent tape is good for sealing the tracings. Since a long piece of tape is difficult to handle, each traced illustration should be sealed separately with a short piece of tape. It is best to use clear tape which is 5 cm. wide, but if this is not available, narrower tape may be used. Careful application of the tape will help to prevent air bubbles.



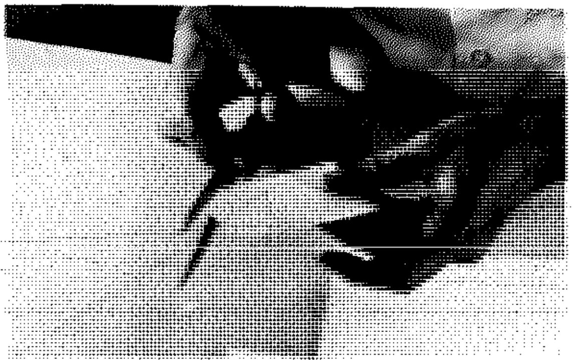
18. Even with the greatest care, air bubbles will form under the tape. They should be immediately pricked several times with a pin and pressed with the finger to expel the air. If the bubbles are simply pressed without puncturing, the air cannot escape, and a cloudy effect will result on the tape. This cloudy effect will show in projection.



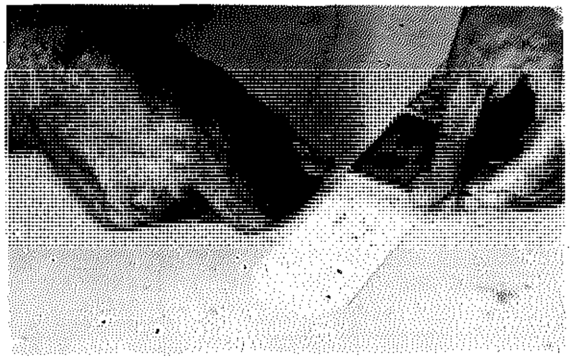
19. *Pressurized* spray sealers are available in some places. These sealers work well, but have the disadvantage of not being available everywhere. Where they can be purchased, they are usually sold in stores that sell art supplies such as brushes, paints and drawing inks. It is important to spray evenly, with a thin coat at first to avoid blurring.



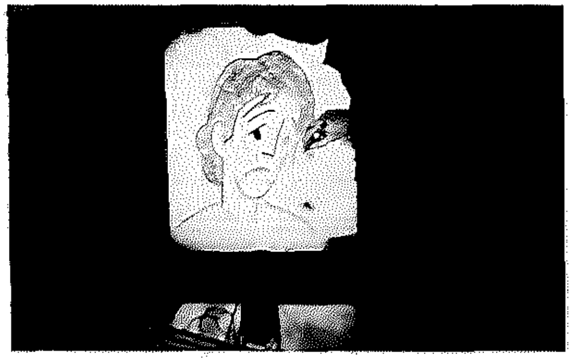
20. Tracings may also be sealed by spraying clear fixative or lacquer with an atomizer. Lacquer is usually sold in hardware or house paint stores, while atomizers are sold in art supply stores. The spray should be as fine as possible, and lightly sprayed at first. Repeated sprayings will build up a thick coating, if you allow time for drying between each coat.



21. In order to finish the filmstrip, a leader needs to be added. This can be made by cutting a rectangle of cardboard as wide as the strip and about 10 cm. long. Clip off the corners of one end. Some cardboards may be too thick to go into the projector, so check this leader before attaching it to the polyvinyl or acetate strip.



22. The end that is not cut should be attached to the polyvinyl strip with tape. Both sides should be taped securely to be sure the strip can be put into the projector easily without getting caught on the edges of the projector gate. This leader needs to be free from writing. Later this will be used to write instructions for inserting the strip into the projector.



23. Posters and flipcharts can also be quickly and easily made using this tracing book by projecting the image onto a large piece of paper and retracing it. Posters can introduce a filmstrip or announce its screening date and time. Flipcharts containing the same information as a filmstrip presentation will repeat, and thus strengthen the message.



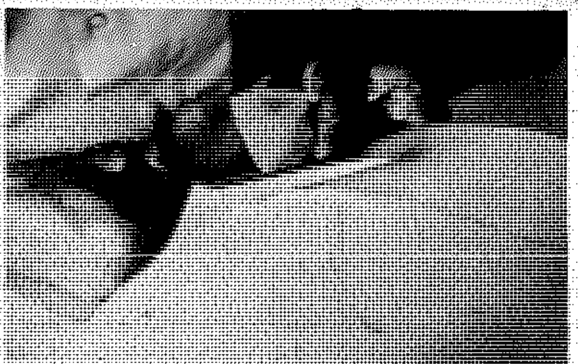
24. To make a poster or a set of flipcharts, the selected illustrations must first be traced on polyvinyl, acetate, or tracing paper. Tracing paper is good for this purpose because a pencil can be used to trace the image. To make posters or flipcharts first cut a small piece (5 cm. by 10 cm.) of your material. This small piece is easier to handle than a long strip.



25. A tracing is made on the rectangle using this tracing method just as it was used to make filmstrips. Titles may be traced from books or magazines, or may be lettered freehand after the illustration is enlarged. Titles for posters should be short. If a program or service is being announced, be sure to include the time and the date on the poster.



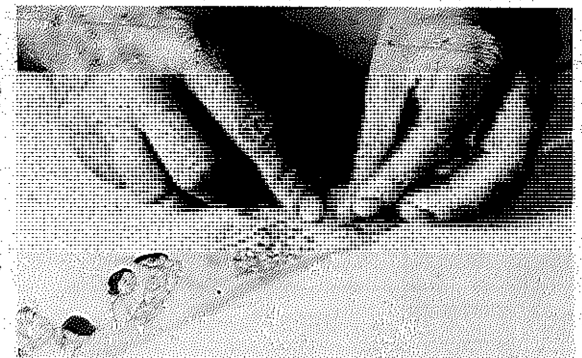
26. Project this traced drawing onto a large paper attached to the wall of a darkened room. After the drawing has been outlined in pencil, the paper can be taken off the wall for completion. Both posters and flipcharts are made this way, although posters should be larger. Coloring with paint, wax crayons or marking pens adds interest.



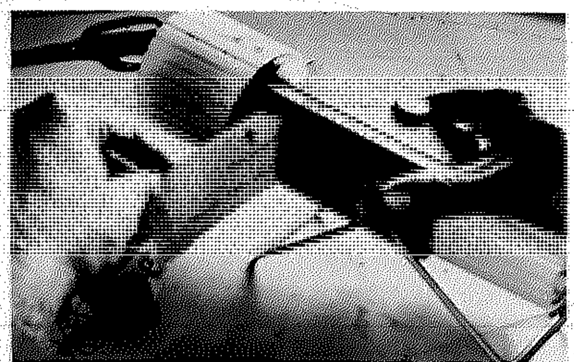
27. Hand traced filmstrips can also be made entirely of tracing paper, although they are not as durable as strips made from polyvinyl or acetate. As with the polyvinyl or acetate, the tracing paper is first cut into strips 5 cm. wide. To avoid excessive handling of the tracing paper, these strips should be limited to a length of about 30 cm. long.



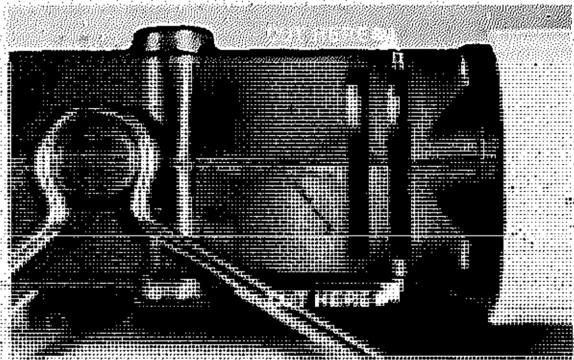
28. The pictures are then traced onto the tracing paper from the book. One advantage of tracing paper is that any type of pen and ink, pencil or marking pen may be used for tracing. The pictures can be colored with marking pens. For more transparency tracing paper should be oiled on the back, with machine oil, butter or grease, after the drawings are made.



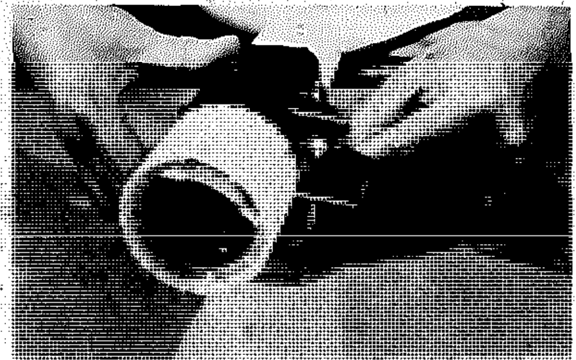
29. Each picture on a tracing paper strip must be sealed with clear tape. Any excess oil should be rubbed off before the tape is applied. Overlap the tape so that all of the tracing paper is covered. For more durability, cover both sides of the tracing paper with tape. The short pieces of tracing paper should be joined together with tape to form a long strip.



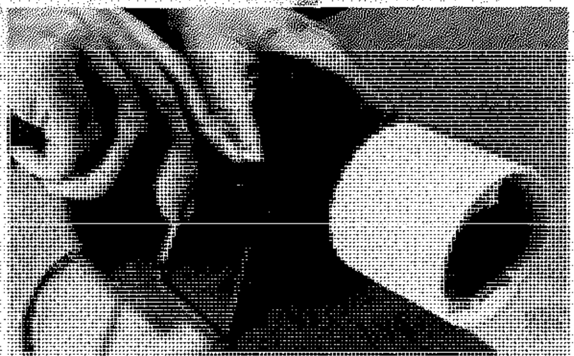
30. To determine the direction of insertion of the filmstrip, slide it into the projector and project it. When the proper side is discovered, mark the cardboard leader to show which side should go up and from which side the strip should be inserted. This will make it easier to put the filmstrip into the projector on future occasions.



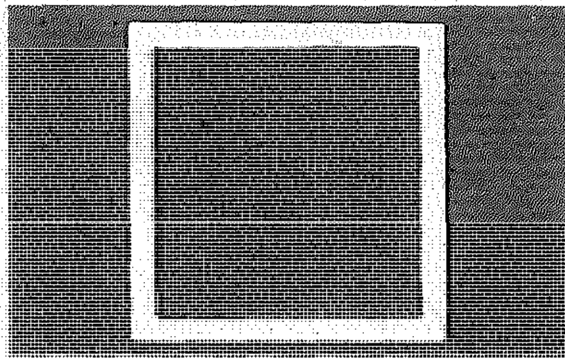
31. IMPORTANT NOTE. A 5 cm. strip is too wide to fit the exit gate of a Crusader, so this gate must be enlarged in order to use a *hand-drawn* filmstrip. A small cut in the front exit gate allows the strip to easily pass through. As shown above, the cut should be in the center of the opening, and should be as narrow as possible, to help support the filmstrip.



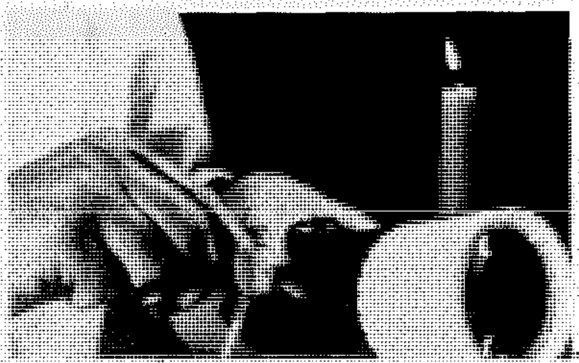
34. Since a polyvinyl or acetate strip fits loosely into the projector, a stabilizer should be made to keep the filmstrip in focus. A clear piece of rigid plastic 8 mm. thick or a piece of glass makes a good stabilizer. This should be cut into a 5 cm. by 5 cm. square in order to fit a Crusader projector. The edges should be ground or filed to avoid accidents.



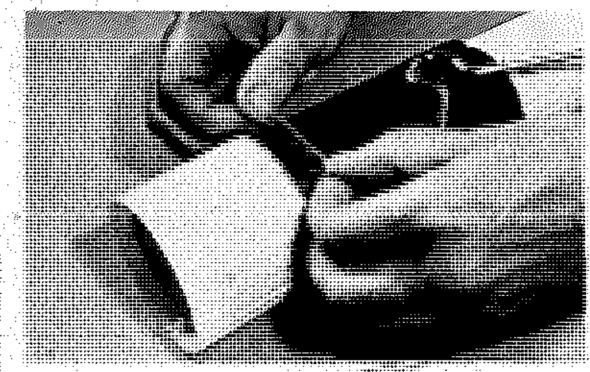
32. One good method of altering the exit gate of the projector is with a hacksaw blade. Care should be taken to make the cut exactly in the *middle* of the gate. The cut should be only as wide as the hacksaw blade. It should be deep enough to reach the side of the projector, but the side must not be cut. Cutting the side of the projector will weaken it.



35. If glass or plastic is not available, another type of stabilizer can be made from a piece of cardboard. The cardboard must be about 8 mm. thick so that it will be rigid. It should be cut with scissors or a razor blade to the exact size and shape shown above. It is important to have the inner edges smooth because they will be visible when your filmstrip is projected.



33. Another method of altering the projector is to melt a thin slit with a hot knife. The knife may be heated with a candle or a match. When using this method, the knife should be left in place until the plastic cools; otherwise a jagged edge will result. Again, be sure to avoid cutting through the side of the projector, as this will weaken the projector body.



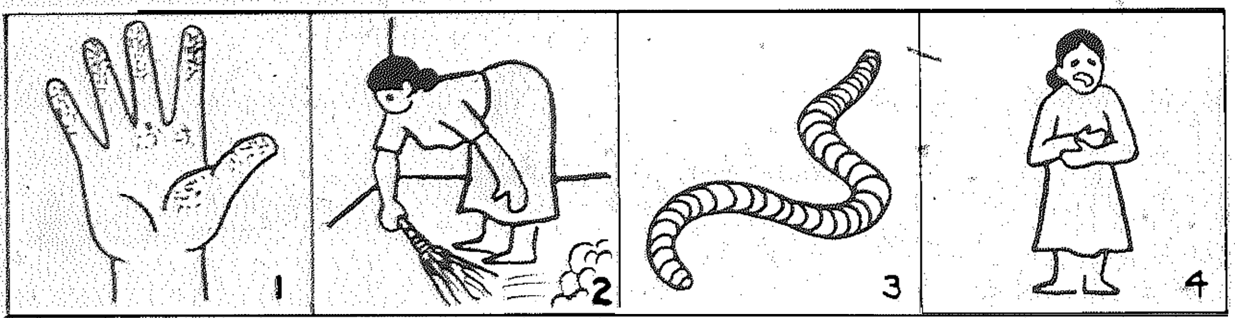
36. This cardboard stabilizer is then put into the front gate of the projector and taped into place. It is not necessary to remove the stabilizer. With the plastic or glass stabilizer, it is best to insert the strip before the stabilizer is put into position. If the strip is moved backwards, hold one finger in front of the stabilizer to keep it from falling out.

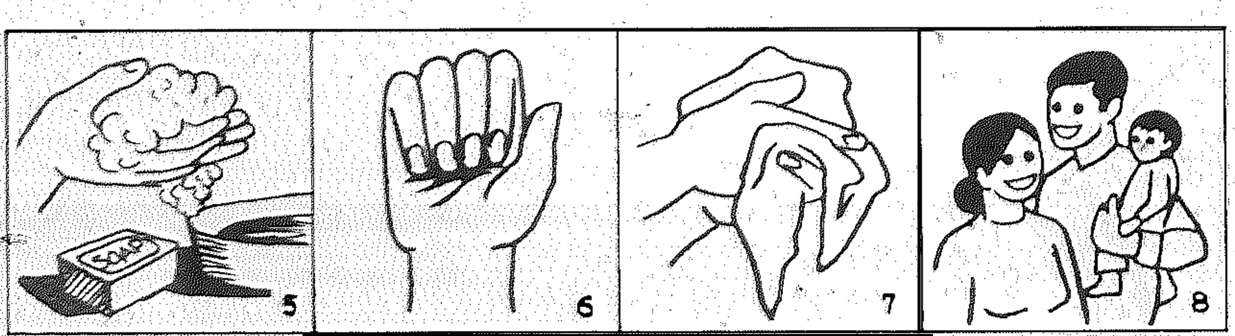
HERE'S A FILMSTRIP YOU CAN TRACE

Here is a short filmstrip you can trace directly, just as it is. You can use any of the methods mentioned in the instructions for drawing—or all of them. Experiment. Try tracing with any of the drawing materials you have on hand or can easily obtain.

Hand-drawn filmstrips are easy to make; anyone can make them. Practice always improves your skill, so if you are not pleased with the results of your first attempt, try again.

The script for this short filmstrip about the health hazards of dirty hands is printed below the pictures. The numbers on the script correspond to the numbers on the pictures. You may want to add other points to this script so that it will include specific problems in your area.





1. Unwashed hands are dirty, germ-covered hands. Dirty hands lead to sickness.

2. The germs that are on dirty hands come from everything you touch. Even when things look clean, they can be covered with germs or the eggs of worms.

3. Germs and the eggs of worms are too small to see without the help of a microscope. Worms look something like this. Many people who are sick have worms.

4. These barbaric animals show no pity for anyone. They sneak from your dirty hands into your mouth or onto the food you eat and go into your stomach. They cause stomach pains, vomiting, fever and even death—especially to babies.

5. You can escape from the wrath of these germs by always washing your hands before you eat. Washing with water alone is not sufficient, you should always use soap with the water.

6. You should also clean your fingernails very well. A whole army of germs can hide under one dirty fingernail.

7. After washing your hands with soap and water, it is good to dry them with a clean cloth. If you do not have a clean cloth, simply let them air dry. Do not use a dirty cloth; it has more germs on it.

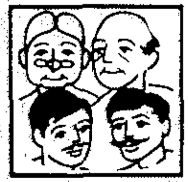
8. Clean hands can help keep you and your family healthy and happy. Always wash your hands after the latrine and before you eat, handle the baby or prepare food.

THE STORY OF TWO SONS

The drawings on this page are too small to trace. You will need to locate each of them in the back part of this manual in order to make a filmstrip about the two sons and their families.

Starting from the left end of your polyvinyl or acetate strip, trace each drawing in an order that matches the script. Begin by finding the picture to the left side of the paragraph numbered 1 and proceed down this page. Lay the strip along the horizontal lines that separate the drawings so that your tracings will be straight. To make the story even more interesting, change the names that are underlined in this script to names which are common to your area.

This filmstrip is designed to introduce a discussion about family planning. It is your responsibility to be able to answer any questions that are asked.



1. A few years ago in the village Nagrota there lived Shri and Shrimati Singh. There were two sons in their family named Mohan and Rajinder. When the two sons reached maturity, they were married.



2. After one year of marriage, a son was born to Mohan and his wife Shanti Devi. They were very happy.



3. Rajinder and his wife Kumala Devi decided not to start their family right away. They visited the local nurse to discuss postponing their first child for a year or so.



4. Rajinder and Kumala practiced family planning for two years before they decided to have a child. After three years of marriage, they were blessed with a son.



5. As the years passed, Mohan and Rajinder continued to work with their father on the farm. They had a very good farm and because they used the new seeds and methods that they learned from an agricultural extension agent, they were able to produce more and more.



6. During these years, Mohan and Shanti had a child each year. Their whole portion of the farm produce was used to support their family of five children. They had no extra money.



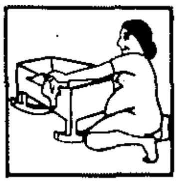
7. During this same period, Rajinder and Kumala had only one child to care for, so they had enough from their equal portion of the farm's produce to buy a radio. They also made some improvements on their house and bought a table and some chairs.



8. Because they were practicing family planning and could afford another child, they decided to have a second baby. When Kumala discovered she was pregnant, she began visiting the family planning nurse regularly so that she could be sure of having a healthy baby.



9. On the advice of the family planning nurse, Kumala ate the foods that would make her baby healthy and strong. She knew that eating the proper foods would also make her milk rich and good for the child.



10. In the home of Rajinder, the birth of their next child was a happily anticipated event.



11. Meanwhile in the home of Mohan, Shanti became suspicious when she missed a period—was she pregnant again? ! ! When she missed her second period her fears were verified.



12. Shanti, filled with despair and anxiety about having another baby, finally went to the home of Rajinder to discuss her problems with Kumala.



13. She cried, "Oh Kumala, what am I going to do? I am going to have another baby, my sixth, while you are just now carrying your second child."

"I've told you to talk to Mohan about family planning," replied Kumala.

"But every time I start to talk about it I become embarrassed," Shanti replied.



14. Shanti looked tired, so Kumala advised, "Your health is bad. You must eat better and drink milk so that the baby growing inside of you will be healthy."

"How can I ?" asked Shanti. "We barely have enough to feed the children now. How can I take away from them for myself? "



15. Consoled little by her visit, Shanti returned home. When she told Mohan she was going to have another baby, he too was very dismayed. "Why is God so cruel to us! " he moaned.



16. As the months passed, Shanti got weaker and more and more irritable. It seemed as if the children were especially noisy. Even after a hard day of work in the fields, Mohan never found any peace and quiet at home.



17. One day, several months later, the family planning nurse was visiting Kumala. While she was there, the oldest child of Mohan came and cried, "Come, please, Mother is very sick and Father has gone to the market. "



18. Kumala and the family planning nurse rushed to see Shanti. After the nurse examined Shanti, she gave her an injection and some medicine. She also told Shanti that she should eat a proper diet.

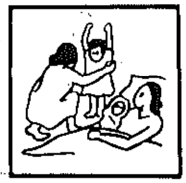
"I will make sure she has the things she needs," promised Kumala.



19. Kumala, though heavy with child, daily cared for Shanti until she slowly began to regain her health.



20. It was a happy day in the home of Rajinder when Kumala gave birth to a baby girl. Kumala was strong, so she recovered quickly.



21. When Shanti's delivery time came, Kumala helped with the cooking and took care of Shanti's children. Since Shanti had given birth to a child every year, she was not very strong. Her recovery after this last birth was slow, but after a while she began to feel better.



22. Even though she was well enough to do the work in her home herself now, Shanti always felt tired trying to keep the six children cleaned and fed.



23. Mohan had hoped that things would improve after the birth of the baby, but it seemed they only got worse. This year their son, Vijay, had started to school but he did not have the books and supplies he needed. When he came to his father and asked why, Mohan painfully explained that he had no money for these things.



24. Day by day Mohan became more depressed with the problems of providing for his children—and then, too, there was the difficulty between him and Shanti. They were forced to stay apart due to the fear of another pregnancy.



25. With burdens too heavy for him to carry alone, Mohan went to Rajinder. "Why has God turned his back on me? The farm production increases and yet I cannot provide for my family. We divide the produce equally, but yours provides more."

Rajinder replied, "God is not at fault—you are. You have fathered more children than you can provide for."



26. "I have tried to convince you to go to the clinic to find out about family planning methods," Rajinder continued. "But you always refuse. If you agree to go with Kumala and me tomorrow, at least you can keep from adding to your problems by having a seventh child."

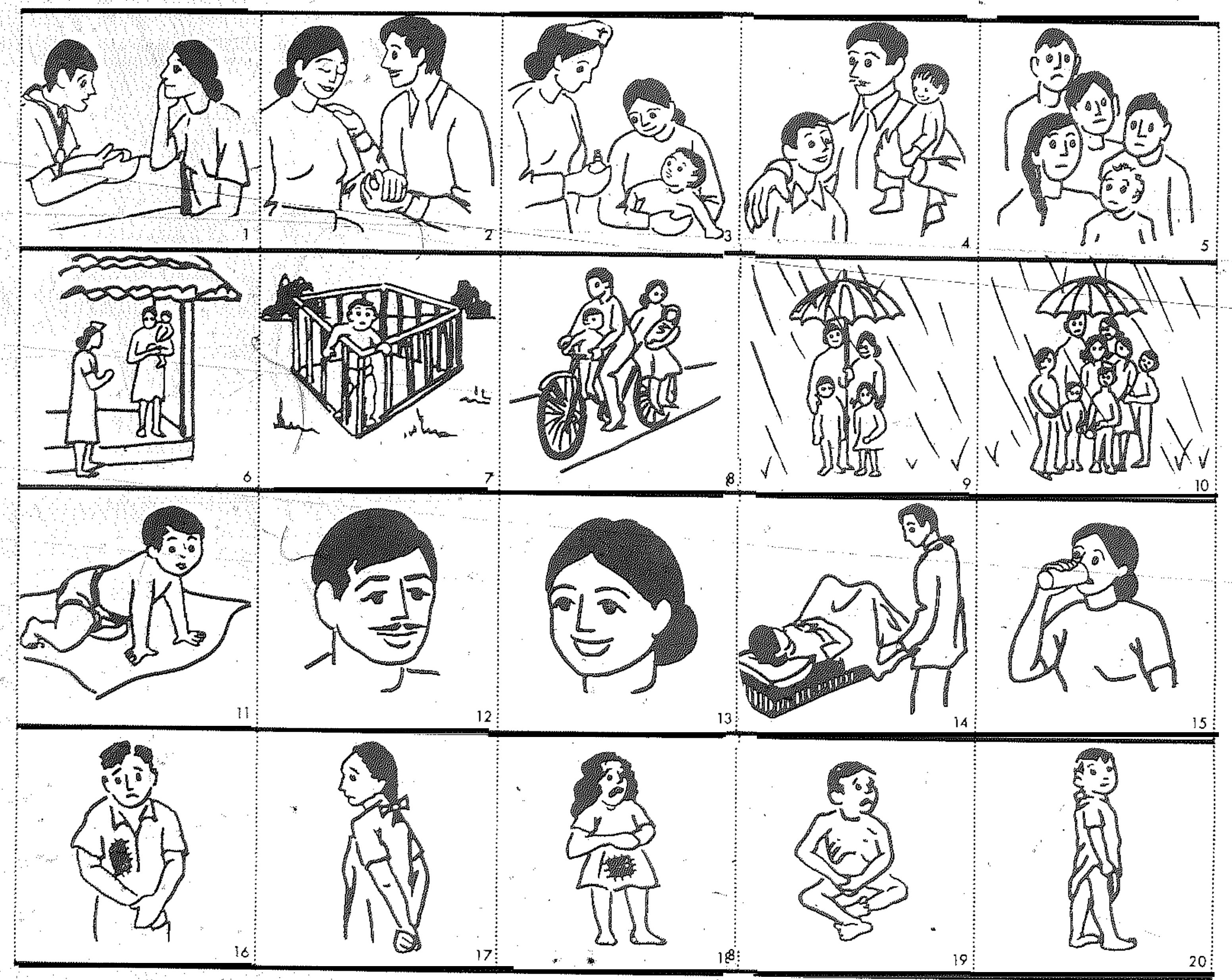
"All right, I will tell Shanti and we will go," replied Mohan.



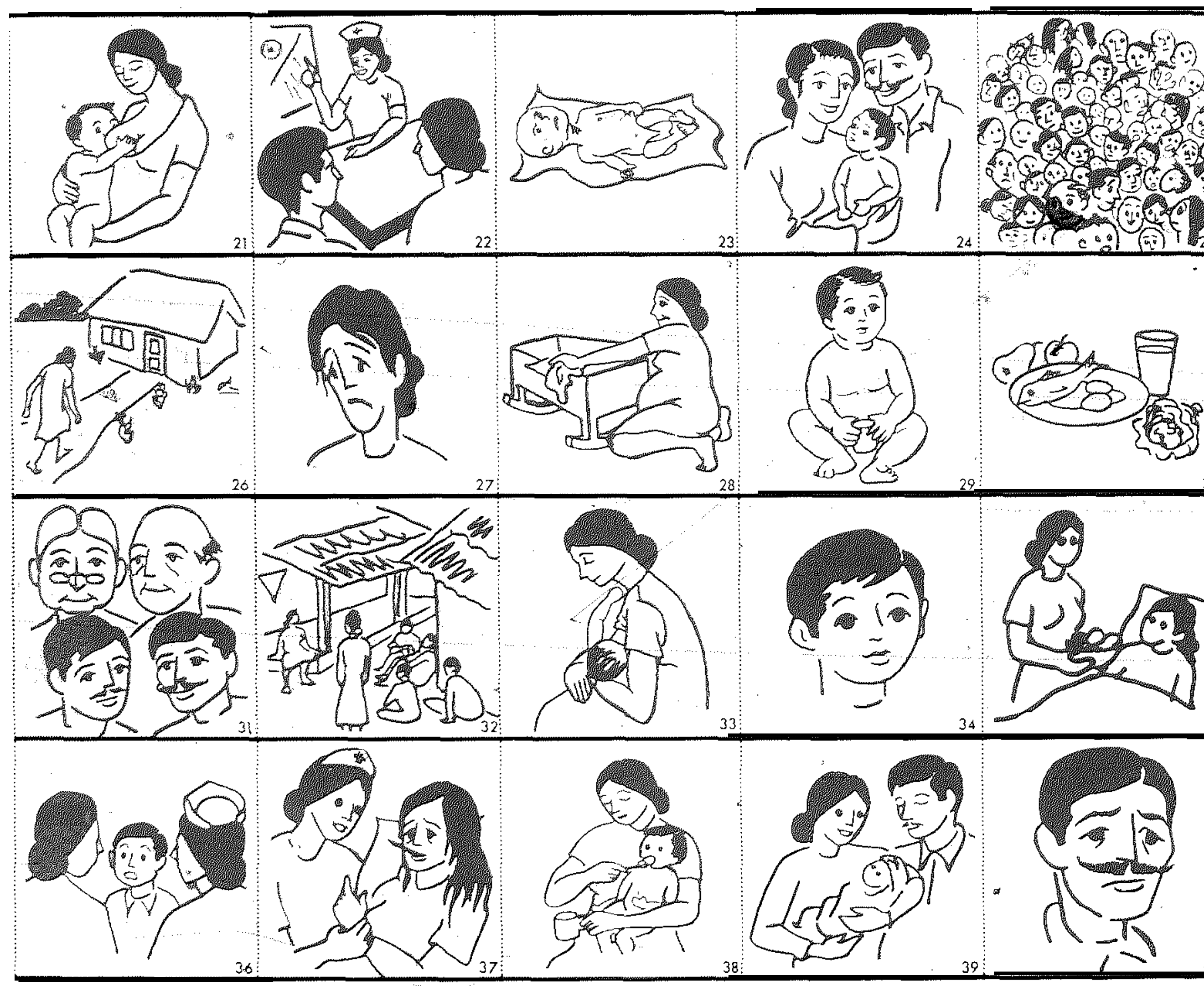
27. So the next day Rajinder and Kumala took Mohan and Shanti to the clinic to discuss the methods of family planning. They had many questions to ask the family planning nurse.



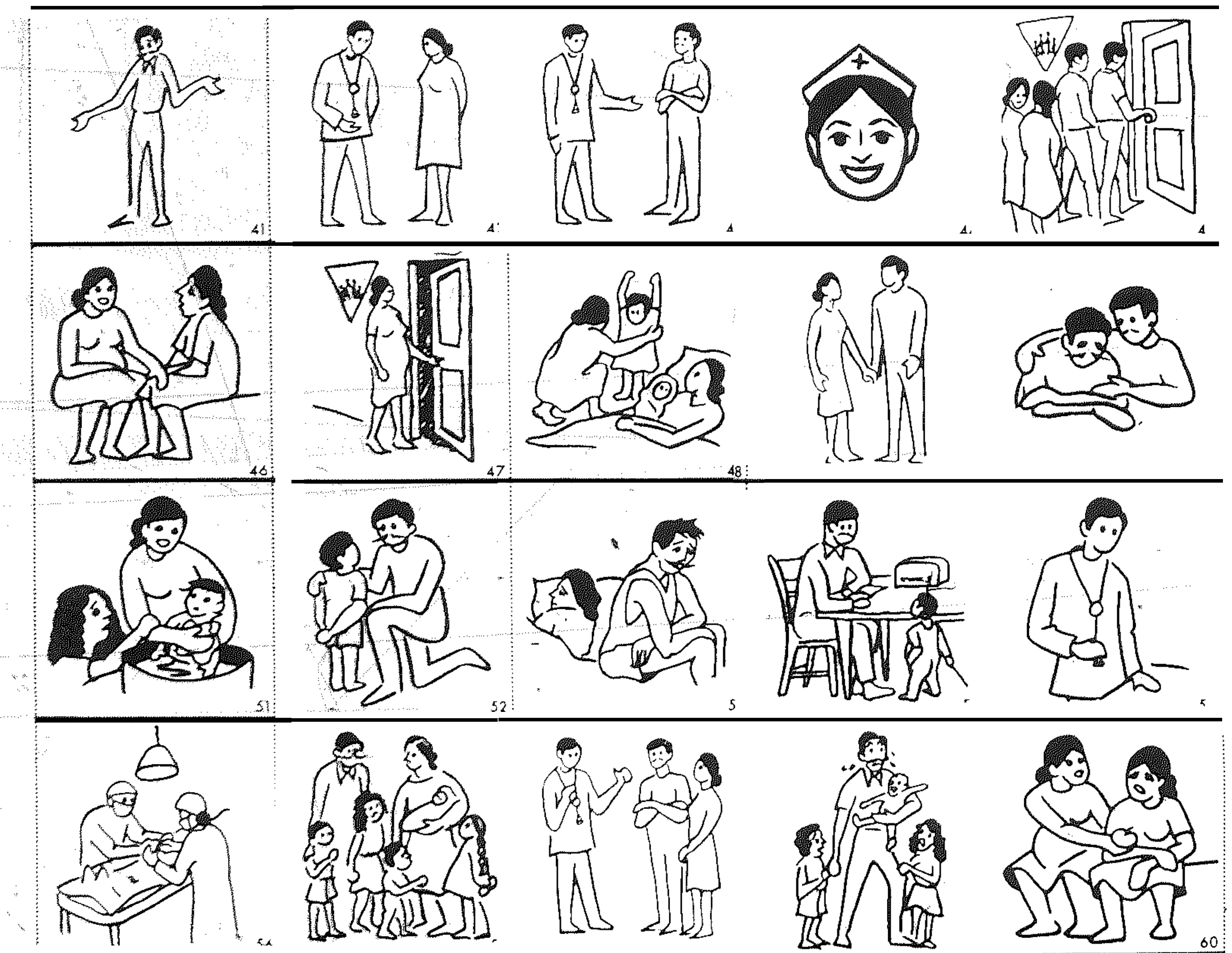
28. What kind of questions do you think Mohan and Shanti asked the nurse? If you were Mohan or Shanti, what questions would you ask?



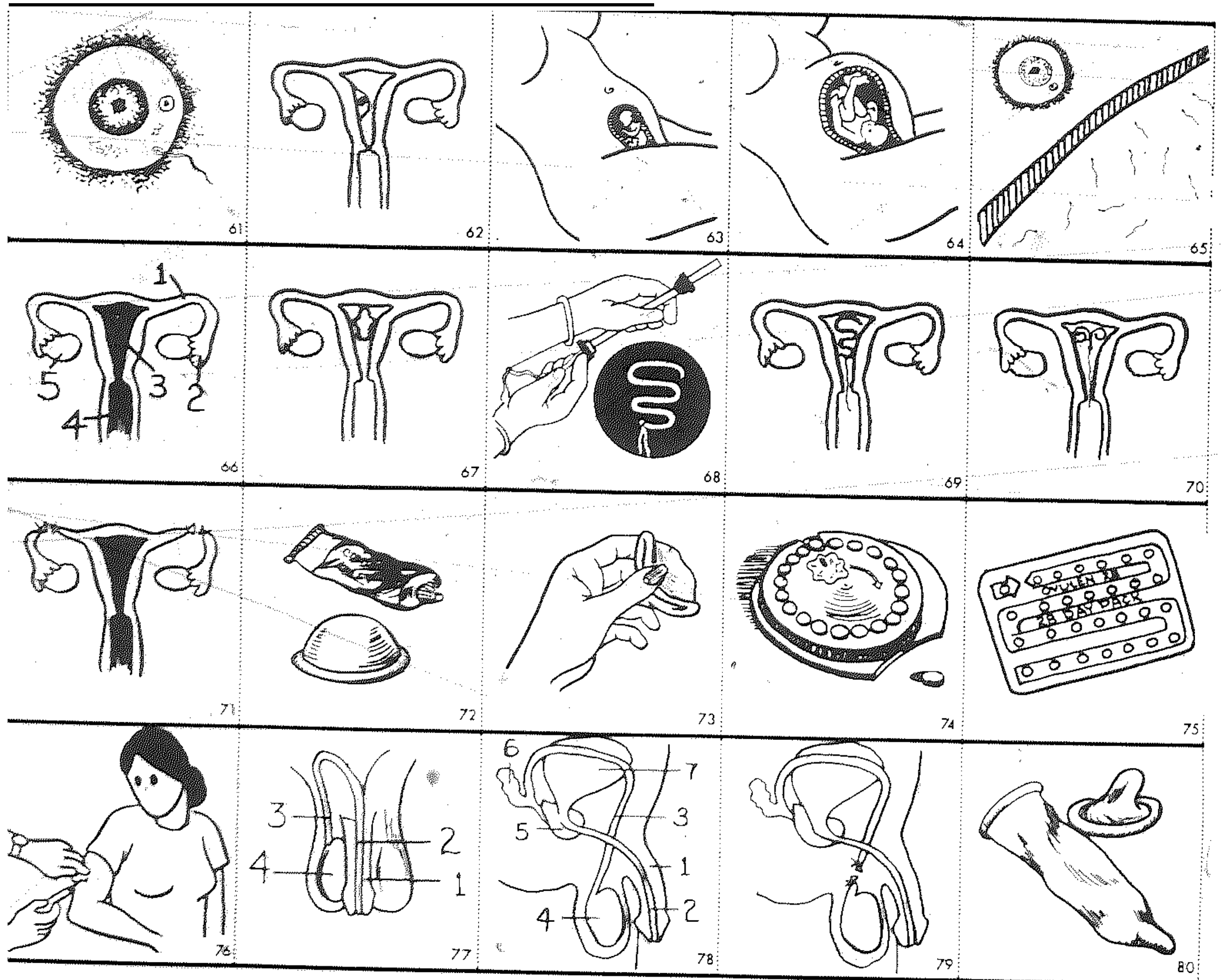
FAMILY PLANNING-PUBLIC HEALTH



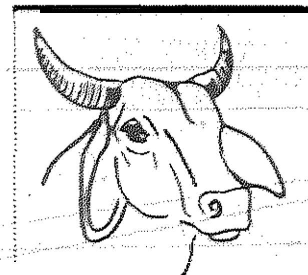
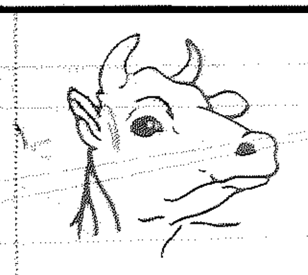
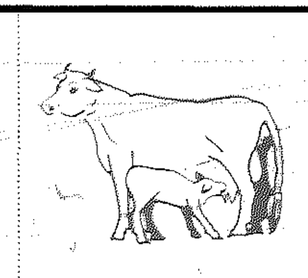
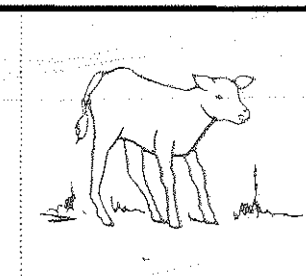
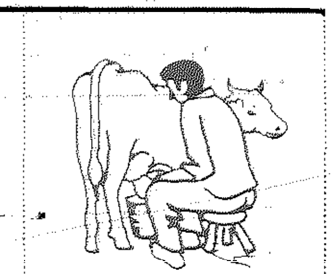
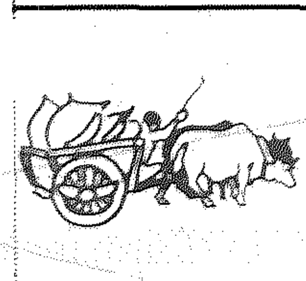
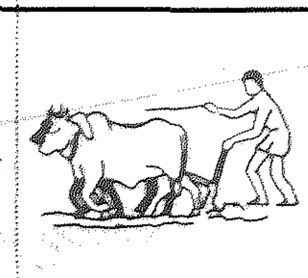
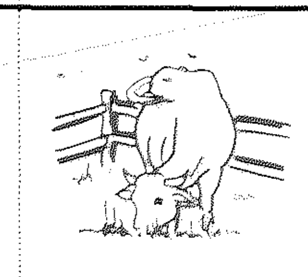
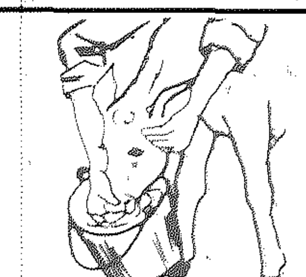
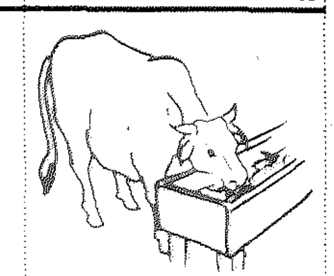
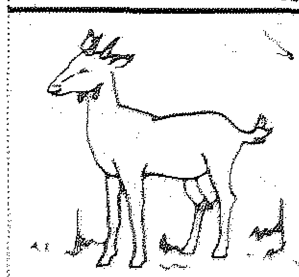
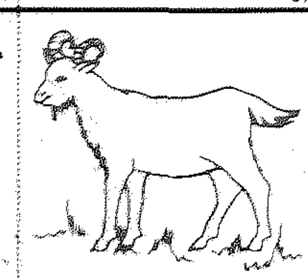
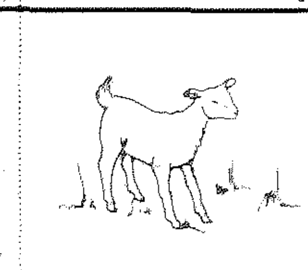
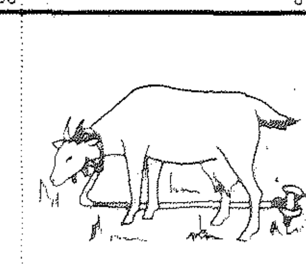
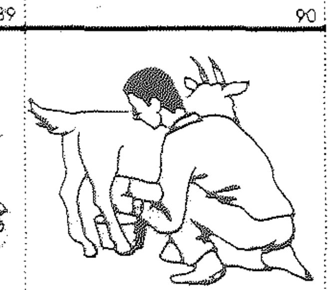
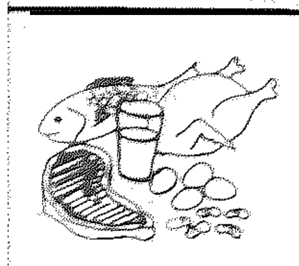
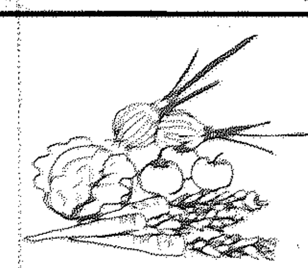
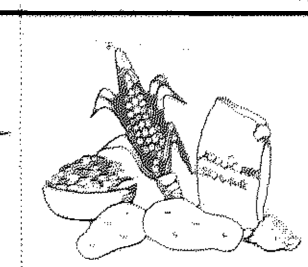
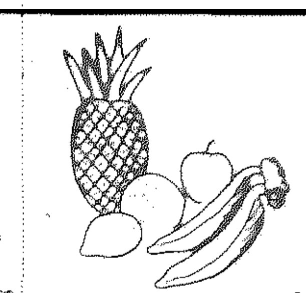
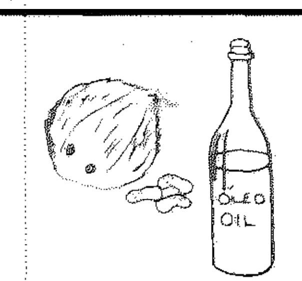
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FAMILY PLANNING-PUBLIC HEALTH

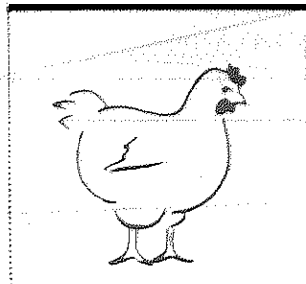


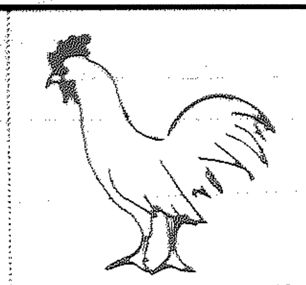
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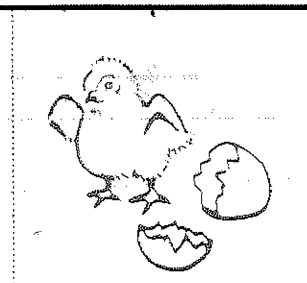

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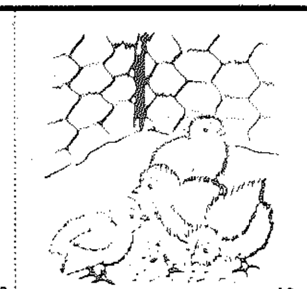
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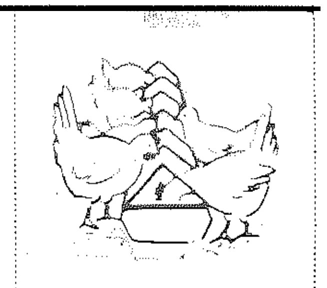
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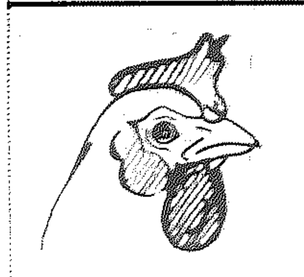

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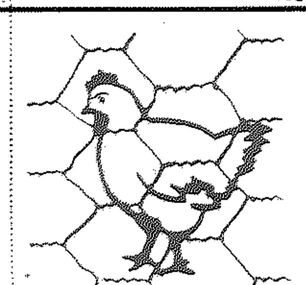

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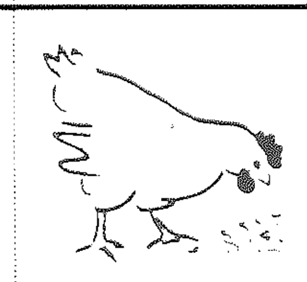

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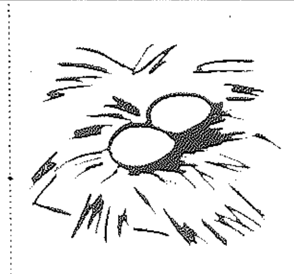

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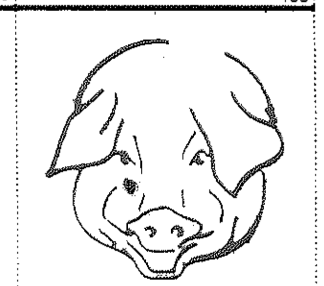

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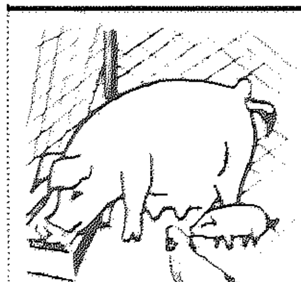

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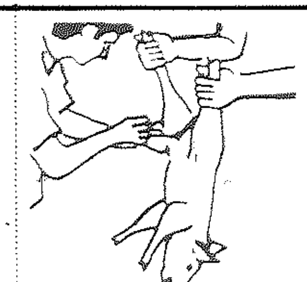

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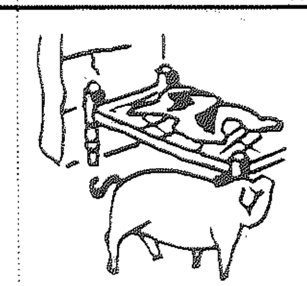

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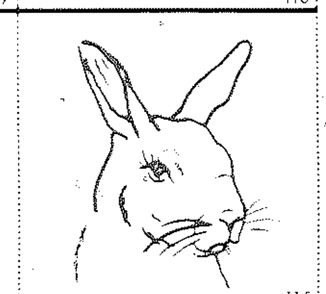

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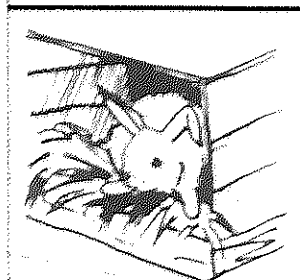

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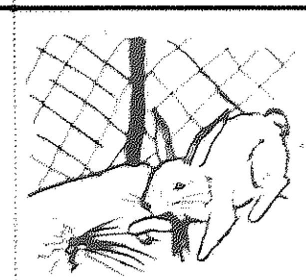

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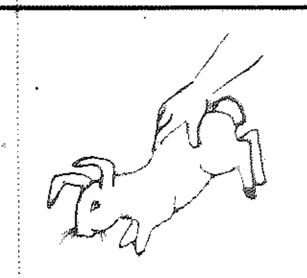

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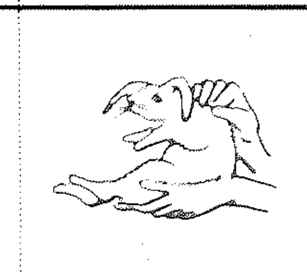

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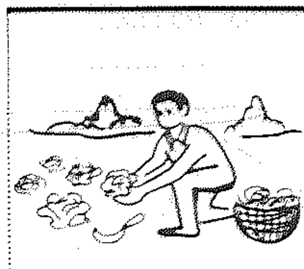

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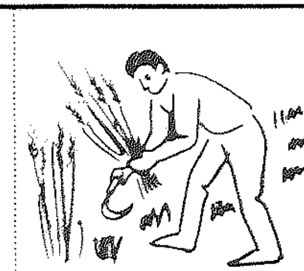

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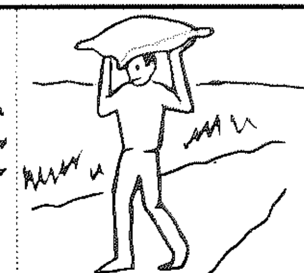

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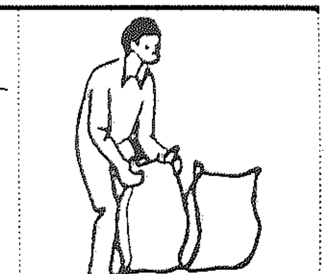
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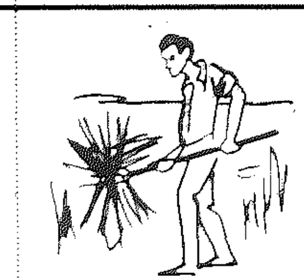

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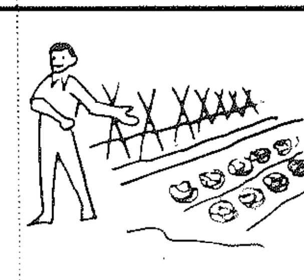

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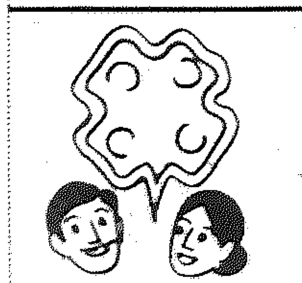

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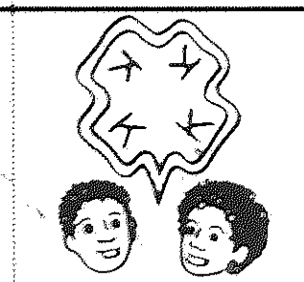

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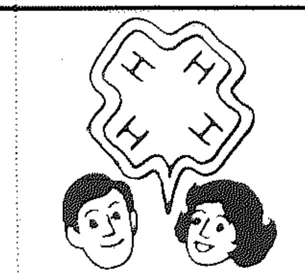

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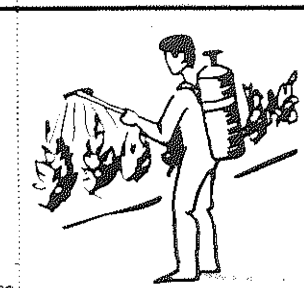

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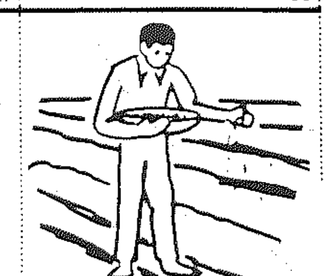

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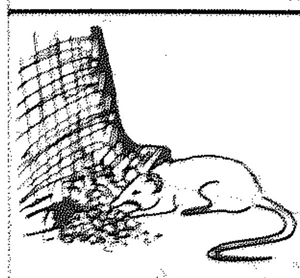

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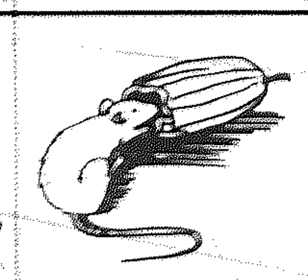

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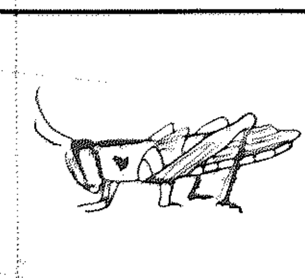

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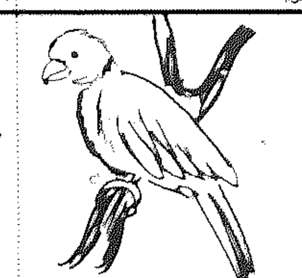

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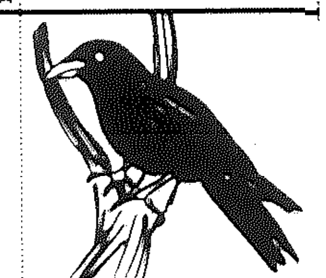

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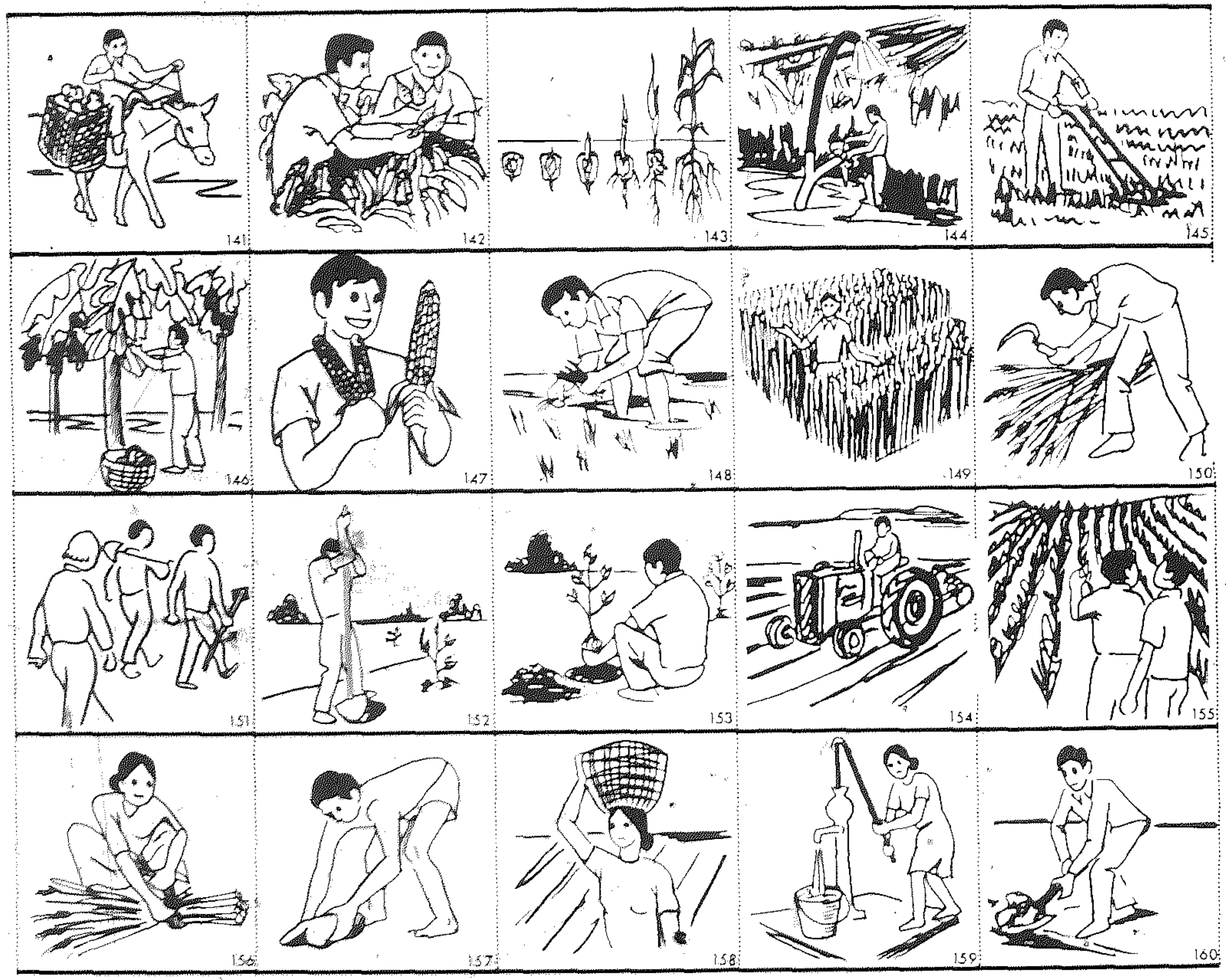

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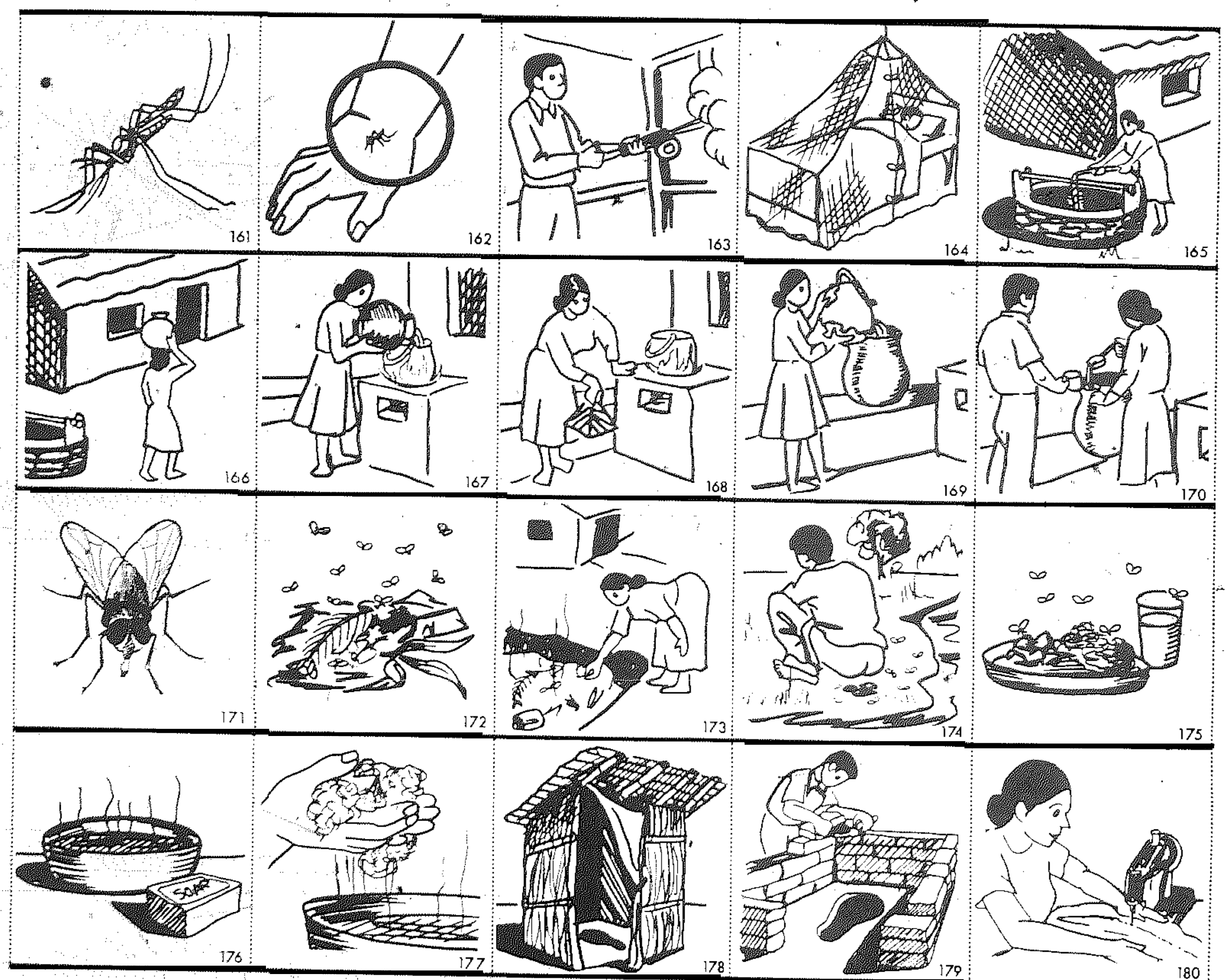

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140

FOOD PRODUCTION



FOOD PRODUCTION



PUBLIC HEALTH